Complete Summary

GUIDELINE TITLE

Management of acute low back pain.

BIBLIOGRAPHIC SOURCE(S)

Michigan Quality Improvement Consortium. Management of acute low back pain. Southfield (MI): Michigan Quality Improvement Consortium; 2008 Mar. 1 p.

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Acute low back pain

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Risk Assessment
Treatment

CLINICAL SPECIALTY

Family Practice
Internal Medicine
Neurology

INTENDED USERS

Advanced Practice Nurses
Health Plans
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To achieve significant, measurable improvements in the management of acute low back pain through the development and implementation of common evidence-based clinical practice guidelines
- To design concise guidelines that are focused on key management components of acute low back pain to improve outcomes

TARGET POPULATION

Adults with low back pain or back-related leg symptoms for less than 6 weeks

INTERVENTIONS AND PRACTICES CONSIDERED

Evaluation/Diagnosis

1. Assess patients for "red flag" indicators of serious disease (e.g., cauda equina, cancer, fracture, infection)
2. Imaging (plain X-rays, bone scan, computed tomography [CT], magnetic resonance imaging [MRI]), if indicated
3. Laboratory tests (complete blood count [CBC], urinalysis, erythrocyte sedimentation rate [ESR]), if necessary

Management/Treatment

1. Reassure patients and encourage to stay active
2. Ice for painful areas, stretching exercises, and McKenzie exercises
3. Acetaminophen and non-steroidal anti-inflammatory drugs (NSAIDs)

   Note: COX-2 inhibitors and opiates were considered but not recommended.

4. Referral, if necessary

MAJOR OUTCOMES CONSIDERED

Not stated

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The Michigan Quality Improvement Consortium (MQIC) project leader conducts a search of current literature in support of the guideline topic. Computer database searches are used to identify published studies, existing protocols and/or national guidelines on the selected topic developed by organizations such as the American Diabetes Association, American Heart Association, American Academy of Pediatrics, etc. If available, clinical practice guidelines from participating MQIC health plans and Michigan health systems are also used to develop a framework for the new guideline.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence for the Most Significant Recommendations

A. Randomized controlled trials
B. Controlled trials, no randomization
C. Observational studies
D. Opinion of expert panel

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Using information obtained from literature searches and available health plan guidelines on the designated topic, the Michigan Quality Improvement Consortium (MQIC) project leader prepares a draft guideline to be reviewed by the medical directors' committee at one of their scheduled meetings. Priority is given to recommendations with [A] and [B] levels of evidence (see "Rating Scheme for the Strength of the Evidence" field).

The initial draft guideline is reviewed, evaluated, and revised by the committee resulting in draft two of the guideline. Additionally, the Michigan Academy of Family Physicians participates in guideline development at the onset of the process and throughout the guideline development procedure. The MQIC guideline feedback form and draft two of the guideline are distributed to the medical directors, as well as the MQIC measurement and implementation group members, for review and comments. Feedback from members is collected by the MQIC project leader and prepared for review by the medical directors' committee at their next scheduled meeting. The review, evaluation, and revision process with several iterations of the guideline may be repeated over several meetings before consensus is reached on a final draft guideline.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

When consensus is reached on the final draft guideline, the medical directors approve the guideline for external distribution to practitioners with review and comments requested via the Michigan Quality Improvement Consortium (MQIC) health plans (project leader distributes final draft to medical directors' committee, measurement and implementation groups to solicit feedback).

The MQIC project leader also forwards the approved guideline draft to appropriate state medical specialty societies for their input. After all feedback is received from external reviews, it is presented for discussion at the next scheduled committee meeting. Based on feedback, subsequent guideline review, evaluation, and revision may be required prior to final guideline approval.

The MQIC Medical Directors approved this updated guideline in March 2008.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The level of evidence grades (**A-D**) are provided for the most significant recommendations and are defined at the end of the "Major Recommendations" field.

Eligible Population

Adults with low back pain or back-related leg symptoms for < 6 weeks

Patients with Low Risk of Serious Pathology (No Red Flags)

Reassure patient that 90% of episodes resolve within six weeks regardless of treatment **[C]**. Advise that minor flare-ups may occur in the subsequent year.

Therapy

- Stay active and continue ordinary activity within the limits permitted by pain. Avoid bedrest **[A]**. Early return to work is associated with less disability.
- Injury prevention (e.g., use of proper body mechanics, safe back exercises)
- Recommend ice for painful areas and stretching exercises **[D]**.
- McKenzie exercises **[A]** are helpful for pain radiating below the knee.

Referral

- If no improvement at 1 to 2 weeks, refer for goal-directed manual physical therapy, not modalities such as heat, traction, ultrasound, transcutaneous electrical nerve stimulation (TENS).
- Surgical referral usually not required if no "red flags."

Medication Strategies

- Medication treatment depending on pain severity with acetaminophen or non-steroidal anti-inflammatory drugs (NSAIDs) **[A]**
- COX-2 inhibitors and muscle relaxants have **not** been shown to be more effective than NSAIDs **[A]**.
- Opiate analgesics have **not** been shown to be more effective than NSAIDS in acute low back pain.

Testing

- Diagnostic tests or imaging usually not required.
- If no improvement after 6 weeks, consider imaging.

Assessment to Identify Potential Serious Pathology

Assess for "Red Flag" Indications of Serious Disease

Cauda Equina

- Severe or progressive neurologic deficit
- Recent bowel or bladder dysfunction
- Saddle anesthesia

Cancer

- Men and women age >50
- Cancer history
- Insidious onset
- No relief at bedtime or worsening when supine
- Constitutional symptoms (e.g., fever, weight loss)
- Male with diffuse osteoporosis or compression fracture

Fracture

- Traumatic injury or onset, cumulative trauma
- Steroid use history
- Women age >50

Infection

- Steroid use history
- Diabetes mellitus
- Immune suppression
- History of urinary tract infection (UTI) or other infection
- Constitutional symptoms (e.g., fever, weight loss)
- No relief at bedtime or worsening when supine
- Human immunodeficiency virus (HIV)
- Previous surgery
- Insidious onset
- Intravenous (IV) drug use

Patients with High Risk of Serious Pathology (Red Flags)

- Cauda Equina syndrome or severe or progressive neurologic deficit — Refer for emergency studies and definitive care **[C]**
- Spinal fracture or compressions — Plain lumbosacral (LS) spine X-ray **[B]**. After 10 days, if fracture still suspected or multiple sites of pain, consider either bone scan **[C]** or referral **[D]** before considering computed tomography (CT) or magnetic resonance imaging (MRI).
- Cancer or infection — complete blood count (CBC), urinalysis, erythrocyte sedimentation rate (ESR) **[C]**. If still suspicious consider referral or seek further evidence (e.g., bone scan **[C]**, other labs — negative plain film X-ray does not rule out disease).

Definitions:

Levels of Evidence for the Most Significant Recommendations

A. Randomized controlled trials
B. Controlled trials, no randomization
C. Observational studies
D. Opinion of expert panel

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is provided for the most significant recommendations (See "Major Recommendations" field).

This guideline is based on several sources, including the ICSI Adult Low Back Pain Guideline, Institute for Clinical Systems Improvement, 2006 (www.icsi.org).

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Through a collaborative approach to developing and implementing common clinical practice guidelines and performance measures for management of acute low back pain, Michigan health plans will achieve consistent delivery of evidence-based services and better health outcomes. This approach also will augment the practice environment for physicians by reducing the administrative burdens imposed by compliance with diverse health plan guidelines and associated requirements.

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

This guideline lists core management steps. Individual patient considerations and advances in medical science may supersede or modify these recommendations.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Approved Michigan Quality Improvement Consortium (MQIC) guidelines are disseminated through email, U.S. mail, and websites.

The MQIC project leader prepares approved guidelines for distribution. Portable Document Format (PDF) versions of the guidelines are used for distribution.

The MQIC project leader distributes approved guidelines to MQIC membership via email.

The MQIC project leader submits request to website vendor to post approved guidelines to MQIC website (www.mqic.org).

The MQIC project leader completes a statewide mailing of the comprehensive set of approved guidelines and educational tools annually. The guidelines and tools are distributed in February of each year to physicians in the following medical specialties:

- Family Practice
- General Practice
- Internal Medicine
- Other Specialists for which the guideline is applicable (e.g., endocrinologists, allergists, pediatricians, cardiologists, etc.)

The statewide mailing list is derived from the Blue Cross Blue Shield of Michigan (BCBSM) provider database. Approximately 95% of the state's M.D.s and 96% of the state's D.O.s are included in the database.

The MQIC project leader submits request to the National Guidelines Clearinghouse (NGC) to post approved guidelines to NGC website (www.guideline.gov).

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

This guideline is based on several sources, including the ICSI Adult Low Back Pain Guideline, Institute for Clinical Systems Improvement, 2006 (www.icsi.org).

DATE RELEASED

2008 Mar

GUIDELINE DEVELOPER(S)

Michigan Quality Improvement Consortium - Professional Association

SOURCE(S) OF FUNDING

Michigan Quality Improvement Consortium

GUIDELINE COMMITTEE

Michigan Quality Improvement Consortium Medical Directors' Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Physician representatives from participating Michigan Quality Improvement Consortium health plans, Michigan State Medical Society, Michigan Osteopathic Association, Michigan Association of Health Plans, Michigan Department of Community Health and Michigan Peer Review Organization

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Standard disclosure is requested from all individuals participating in the Michigan Quality Improvement Consortium (MQIC) guideline development process, including those parties who are solicited for guideline feedback (e.g., health plans, medical specialty societies). Additionally, members of the MQIC Medical Directors' Committee are asked to disclose all commercial relationships as well.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Michigan Quality Improvement Consortium Web site.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI Institute on July 18, 2008. The information was verified by the guideline developer on July 21, 2008.

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DISCLAIMER

NGC DISCLAIMER

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